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**Digital infrared speech distribution  
system**

**User Manual**

**TS-0670H-16/0670HS/0670HC**

**TS-0670HD/0670HY**

**Before using the system, please read this manual first**

## Important Instruction



To ensure the safety and reliability of equipment and personnel during the process of installation, use and maintenance, please observe the following items:

- If you find out any of the following unusual situation during the using process, please immediately turn off power, plug out and quickly contact your nearest dealer. Do not use the machine, because it may cause a fire or electric shock.

- If you detect smoke or a strange smell from the unit.
- If water or any metal object falls into this unit.
- If this machine has been dropped or the cabinet is damaged.
- Such as wire breakage (exposed core wire, broken, etc.).

- Containing high-voltage parts inside of the machine, to avoid fire or electric shock, please never open the cabinet of the unit, any questions please inform your nearest dealer.

- Do not place cups, bowls, vases or metal is filled with water and other materials placed on this unit. If accidentally something liquid is spilt into the unit, it may cause a fire or electric shock.

- The machine must not be exposed to rain and water at any damp or easily, it may cause electric shock or fire.

- Not place metal objects or flammable materials from the vent cover on the machine, and do not put coins which may result in a fire or electric shock flowers.

- Do not place heavy objects on the machine, in order to avoid personal injury or property damage caused by the unit falling.

- To ensure that pre-boot volume to the minimum, turn the volume too high may cause hearing problems.

- Do not use the machine at the sound distortion, which means that a fault may cause heat and fire inside the machine.

- Due to long-term accumulation of dust to be cleaned, please notify your dealer regular to clean machines, in order to avoid damage of the machine even cause a fire.

- As a Class I device, it must be well connected to the socket with grounded plug device, and the plug must be connected to a grounded power outlet in order to ensure adequate grounding device.

- Due to the escalation of the product appearance, function, Specific please prevail in kind. The factory reserves all the right for the final explanation.

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# **1. Digital infrared voice distribution system overview**

## **About digital infrared voice distribution system**

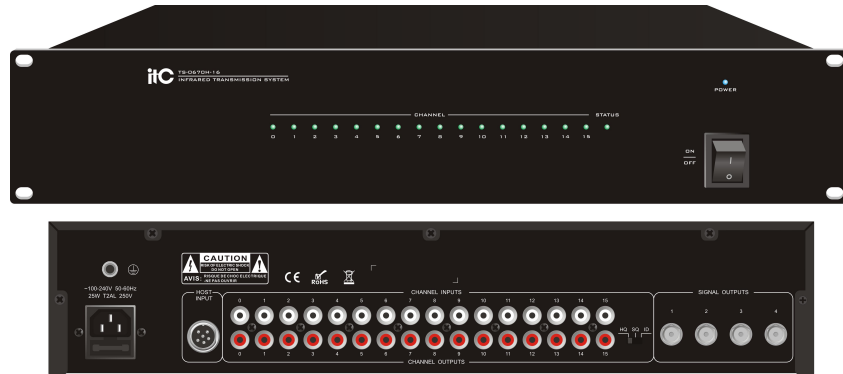
Digital infrared voice distribution system adopts a full digital modulation and demodulation technology. In the conference simultaneous interpretation system, the interpreters simultaneously interpret the original sound of the speaker and the translated language will be transmitted through infrared ray in the venue. The delegates choose the language through the infrared receiver and listen to the language through headphones.

Digital infrared voice distribution system is a system that uses infrared to carry out the voice transmission. Due to the characteristics of rectilinear propagation of infrared light, outside the confined space there's no signal, therefore it has excellent security performance; in the inner room, due to the infrared in walls, floors, ceilings, scattering and diffuse, the infrared signal emitted by the host will form a dense optical network. As long as in the infrared range , it can randomly allocated the number of receiving units.

This system can also be used for other places where needs audio signals distribution, such as music distribution. Its operating frequency accuracy is high, stable and reliable, high security performance, anti interference and eavesdropping. It is suitable for small and medium sized international conferences or multi language teaching places, etc.

## 2. Function Introduction

### 2.1 TS-0670H-16 16 Channel Digital Infrared Wireless Conference System Controller

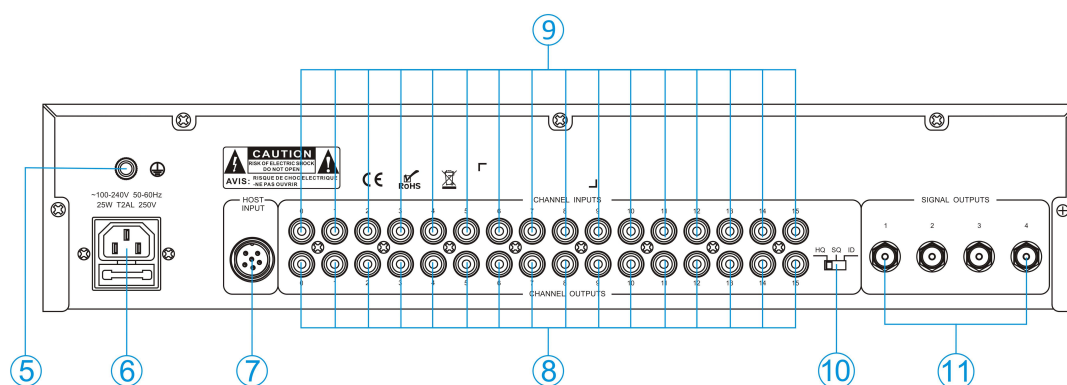
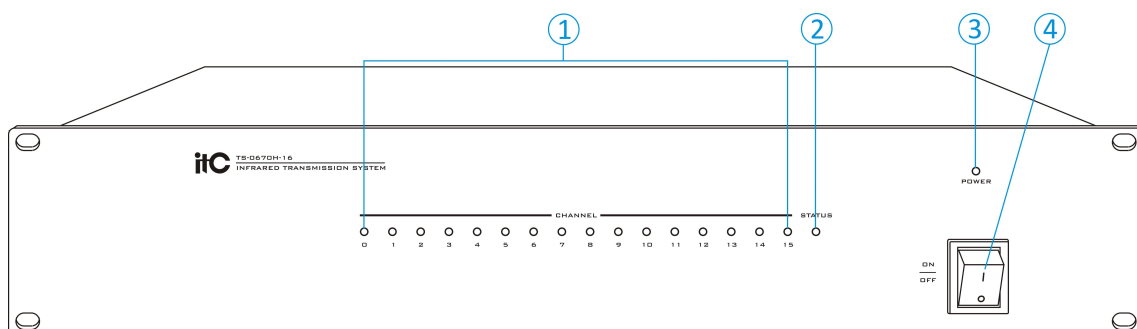


TS-0670H series digital infrared emission host is the core part of the digital infrared voice distribution system. With fully digital DQPSK modulated transmission and digital audio compression coding system, it can transmit the 16 channels languages at the same time. Infrared emission host can be installed on the 19-inch standard rack, easy to storage and preservation.

### Features

1. In accordance with IEC 61603-7 and IEC 60914.
2. With a 16 channel audio output, can be used to monitor or connect cassette for recording.
3. With 4 channel signal output interface (BNC), used to connect with the radiation panel.
4. Using digital DQPSK modulation technology, high confidentiality.
5. High speed DSP processing, sound effect is beautiful and clear.
6. Using high transmission frequencies (2-6 MHz, IEC61603 BAND4 frequency range), without high frequency drive light sources interference
7. With Input level indicator function, LED indicator light on the front panel of the controller can display the input state of corresponding channel
8. With 16 channel external audio input, suitable for international meeting
9. Support to connect with TS fully digital conference system audio, 16 channel digital audio input
10. The power input is 100V-240V, 50-60Hz, with high voltage (3500V) resistant testing before delivery , ensure compliance with safety standards
11. The controller shell adopts metal materials, the line and shell have strengthened ground connection to ensure the 8000V antistatic ability.

## Product Parts function introduction



1. Zero channel to 15 channel audio signal indicator, light on means have signal, light off means no signal or signal weak.
2. Network work indicator light. Flashing when connected with Interpreter unit or the fully digital conference system well; Light Off when no connection or connection breakdown.
3. Host Power indicator light
4. Host Power Switch
5. Earthing rod
6. Power input socket, AC 100-240V
7. Port to connect with Interpreter Unit or fully digital conference system host (Att: no outside power supply, the Interpreter Unit need adaptor )
8. 16 Channel audio output RCA port, connect to audio or recording
9. 16 Channel audio input RCA port, connect to audio sources
10. ID: Edit Interpreter Unit ID/HQ: Eight channels high quality infrared modulation frequency, audio frequency bandwidth : 20Hz ~20KHZ/SQ 16 channel normal sound volume modulation, 20 Hz to 10 KHZ audio bandwidth
11. 16 channel audio output by DQPSK infrared frequency modulation signal, BNC output port, connected with the radiation panel BNC input port.

## Specification

<b>Model</b>	<b>TS-0670H-16</b>
Power Supply	~100-240V 50-60Hz
Power rating	25W
Carrier frequency	2M - 6 MHZ
FM output HF range	2 VPP
The biggest audio input range	4 VPP
FM output interface	BNCx4
Audio input interface	RCAx16
RF output impedance	75Ω
Audio input impedance	4.7 KΩ
Measurement	484L x 305W x 88H(mm)
Weight	6.0Kg
Color	Black

## 2.2 TS-0670HS IR Radiator



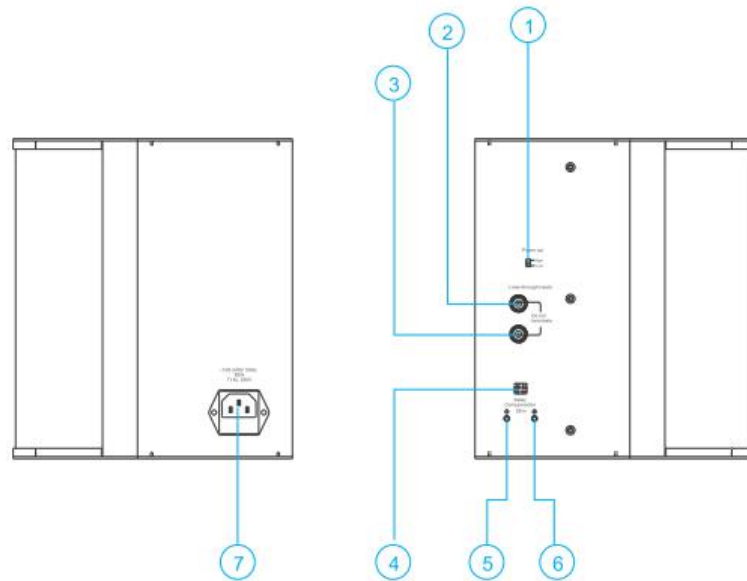
TS-0670HS IR radiator is a high-power infrared radiation device for receiving the carrier signal from the infrared wireless conference controller, and transmitting the carrier signal via infrared. It supports hand in hand connection, support up to 30 radiators to be connected simultaneously.

### Features

1. Super long transmission distance, up to 76 meters.
2. Transmission angle:  $\pm 135^\circ$ .
3. The cable delay compensation, to compensate line delay.
4. Standby: When there is no signal to the IR radiator or not signal output from controller, it will automatically go to be standby status; standby power consumption is only 3W.
5. The transmission intensity can be halved to reduce the signal power, convenient for small environment to use.
6. With arc shape structure, wide coverage.
7. "Hand in hand" connection
8. Light weight and durable.



## Product Features Introduction



1. High / low power transmission or normal power transmission.
2. The DQPSK modulation signal input-output interfaces, to connect modulated signal from infrared controller
3. The DQPSK modulation signal input- output interfaces, to connect IR radiator or dummy load (to increase stability by using a dummy load at end of the line)
4. Delay time display adjustment, with 0-99 delay adjustments, each delay 25nS
5. Reduce delay time adjustment
6. Increase delay time adjustment
7. Power input socket (AC 100-240V)

### The main technical parameters

- Input voltage: AC 100V-240V
- Rated power: 36W
- Frequency range: 2 ~6 MHz
- Infrared radiation power: 33W
- RF output impedance: 75Ω
- RF input: 100mV-3V 10kΩ
- Gain Control: AGC
- Automatic Threshold: 100mV RF signal start
- Standby power consumption: 3W
- Dimensions: 478x228x208mm
- Weight: 7.0Kg
- Color: Black

## 2.3 TS-0670HD IR Receiver



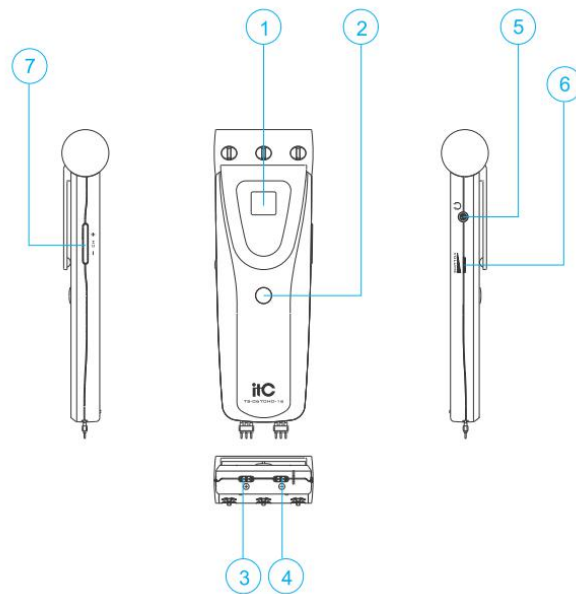
TS-0670HD using the latest electronic technology, use of specialized chips, to ensure the best performance and the longest battery life, according to the ergonomic design of the infrared receiver, infrared signal can be well received. Having a channel selection and volume adjustment function, power switch control the battery power, signal indicator, when no signal is received for 5 minutes or unplug the headset receiver 30 seconds, it will automatic turn off, energy saving and environmental protection.

### Features

1. Compliance with IEC 61603-7 and IEC 60914;
2. Digital DQPSK digital demodulation technique;
3. Use of higher transmission frequency (2-6MHz, IEC61603 BAND4 band), do not interference from high-frequency driver light.
4. Push-button channel selection, can receive 16 audio channels.
5. With LCD display channel number, battery level and signal status indication;
6. The volume can be adjusted freely
7. No noise. When the signal is too low, the signal is automatically muted, ensure that users only receive high-quality signal
8. The compact design, wear-resistant, easy to use and flexible, the receiver can hung on the chest or put on the shirt pocket.
9. The seating capacity is not limited, delegates can random walking in the signal transmission range.

10. Within the effective range of the infrared radiation receiving unit, no limited to increase the IR receive number.
11. When the receiver cannot receive the signal for five minutes, it will automatic turn off.
12. Unplug the headphones, or not connect the headphones for 30 seconds, it will automatic turn off.

## Product Features



1. Channel, signal, battery indicator screen
2. Power switch, turn on by press, turn off by long time press.
3. Charge the positive input
4. Charge the negative input
5. Headphone output
6. The volume control knob
7. Channel switch

## Main Technical Parameters

- 1. Power supply: 3.7V800mAh removable and rechargeable batteries
- 2. Demodulation Mode: Fully Digital DQPSK digital quadrature demodulation
- 3. Carrier frequency: 2.0~6.0MHz
- 4. Audio Frequency Response: 120Hz - 10KHz (Standard) 20Hz - 20KHz (High

Quality) .

- 5.Max SNR > 80dB
- 6. THD <1%
- 7.Rated Power: 100mW
- 8.Standby Power: 8mW
- 9.Size: 58x 176x 32mm
- 10.Weight: 0.23Kg (not including batteries)

## 2.4 TS-0670HC Battery Charger

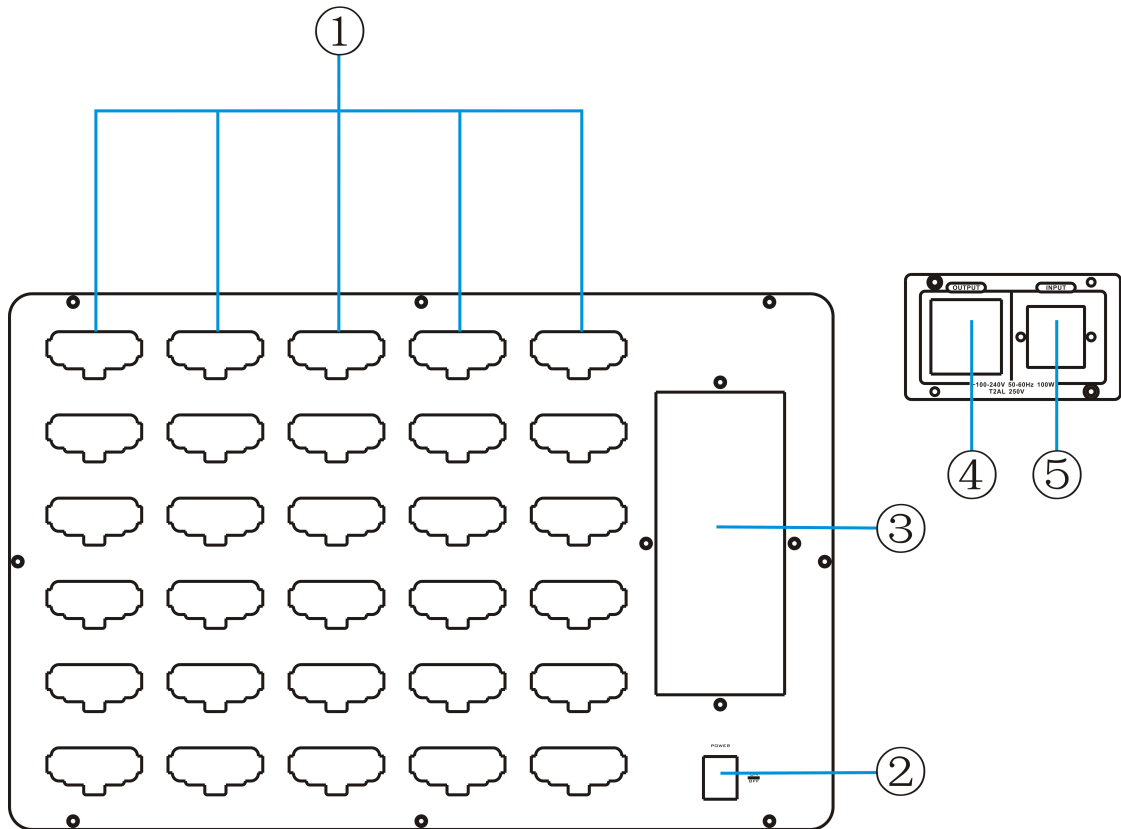


TS-0670HC battery charger is used to recharge IR receiver , Normal power indicator lights in Red; If power indicator lights in Orange, it means under charging; if lights in Green, it means power is sufficient。 Check the connector of receiver and connector of charger socket, if not well connected, Green lights will be flashing all the time.

### Function Features

1. Charge for universal rechargeable battery.
2. Can charge for 30nos receiver at the same time.
3. Power supply input can be cascading connected.
4. 3 hours quick charge: the longest charging time is 8 hours.
5. Except Charging function, it also can be used as receiver storer.

## Product Functions Introduction



1. 30nos Receiver Charging Sockets
2. Power Switch
3. Power supply cable box
4. Power Output Socket
5. Power Input Socket (AC 100-240V)

## Main Technical Parameters

- 1.Power: AC 100V-240V
- 2.Max Power: 100W
- 3.Standby power consumption: 17W
- 4.Size: 494x395x112mm
- 5.Weight: 10Kg

## 2.5 TS-0670HY Interpreter Unit

TS-0670HY is a functional fully digital conference system Interpreter Unit, it is the equipment which the interpreter use it to translate the speaker's speech at the meeting into different national language. It has built-in speakers and pluggable microphone, and earphone headset jack, etc. It could be preset multiple input/output language channel, and a corresponding shortcut keys, make it more convenient for Interpreter. Adopting the Ethernet transmission technology, strong anti-interference, low noise, good sound quality, stable and reliable, it is the most advanced cable transmission technology currently. Enclosure Design is beautiful and fashion, the appearance is concise and relaxed, graceful lines. With the function of simultaneous interpretation, direct translation and indirect translation 15 + 1 kind of languages at the same time, it can be customized 31+1 and 63+1 kind of languages according to the demands, meet the application environment requirement for interpreter to do simultaneous interpretation in the multilingual meeting. With the development of international trade and exhibition economy rise, make the market demand for conference system interpreter equipment is bullish. The market of domestic and international are huge, market prospects will be more and more promising.

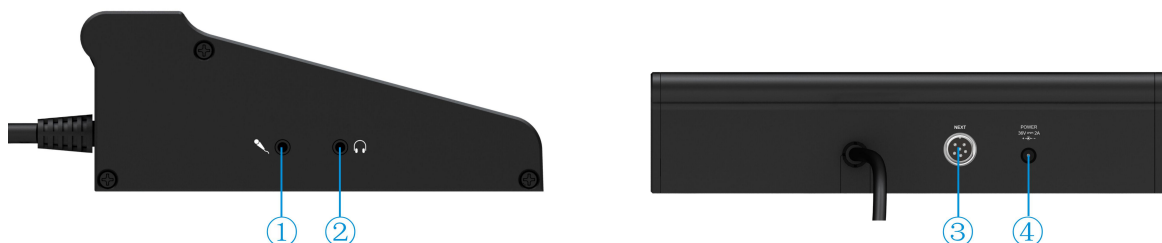


### Function Features

1. Adopt full digital audio tech.; Built-in high speed DSP processor.
2. 20~20 k perfect sound quality, with five period of EQ is adjustable, AGC control automatically
3. Adopting 7-inch touch-screen.
4. Adopting knob plug microphone, with double color indicator light, it will show red when speak.
5. With internal magnetic speaker, headphone jack, and volume adjustment knob.
6. With indirect translation and direct translation function.
7. With text message function.
8. With Tea application functions.

9. With cough elimination function.
10. With voice speed remind function (SLOW).
11. Ask for help function.
12. Support headset microphone and Mi pole microphone pickup
13. With speech timing function (charge according to the time)
14. 15 kinds of languages can be translated at the same time, an interpreter room can installed within 6 translation units.
15. Preset the languages in all channels at random
16. Can be preset 3 fast input channels with a corresponding shortcut keys (a/b/c).
17. Selection button of input channel, and can choose easily in all the input language channel.
18. Can be preset 3 fast output channel, there is a corresponding shortcut keys (A/B/C).
19. Output channel selection button, can choose easily in all the input language channel.
20. Interlocking and race to control mode between interpreter is selectable.

## Function introduction of product parts



1. Deregulated,——headset microphone input port, could speak through headphones
2. Headphone output——Through headphones to listen to the voice of the different channels
3. NEXT——Used in cascade the other translator machine or unit
4. POWER——Used for external power supply, DC 36V power input

## Main technical parameters

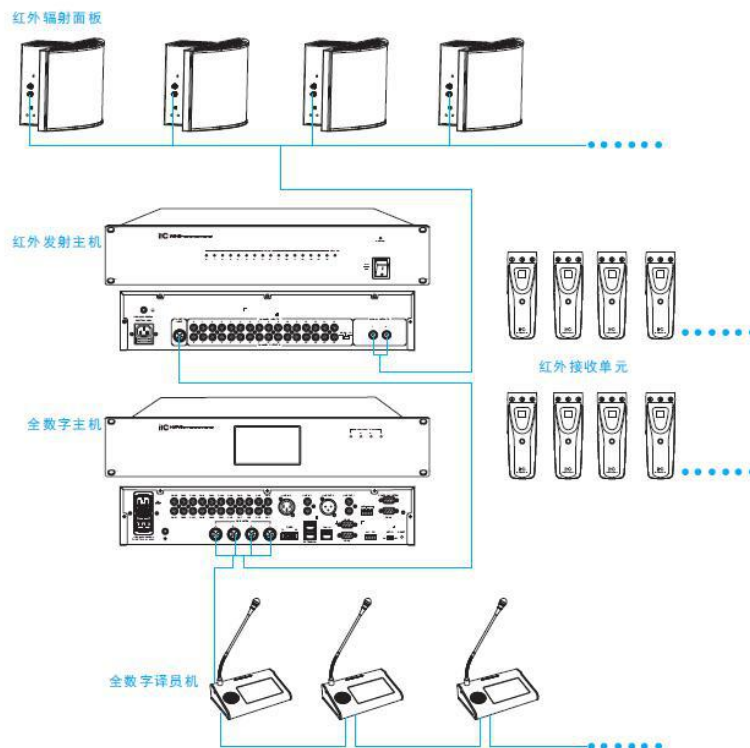
- Power supply: The host power supply or 36 v direct current (DC) input
- Microphone type: Microphone electret heart-shaped directivity
- Directionality 0° /180° : >20dB
- Microphone Frequency Response: 150Hz~18KHz
- The microphone input impedance: 1K Ω

- Sensitivity: -46 dBV/Pa
- Signal to noise ratio: >80dB
- THD : <0.1%
- The output frequency response: 125Hz~12.5KHz
- Maximum power consumption: 7W
- The headset load: 16 Ω
- The headset volume: Max 40mW
- Headphone output interface: 3.5mm Mono jack
- Connection mode: Special cable core (6)
- Connection: Air-16 six core

### 3. System connection diagram

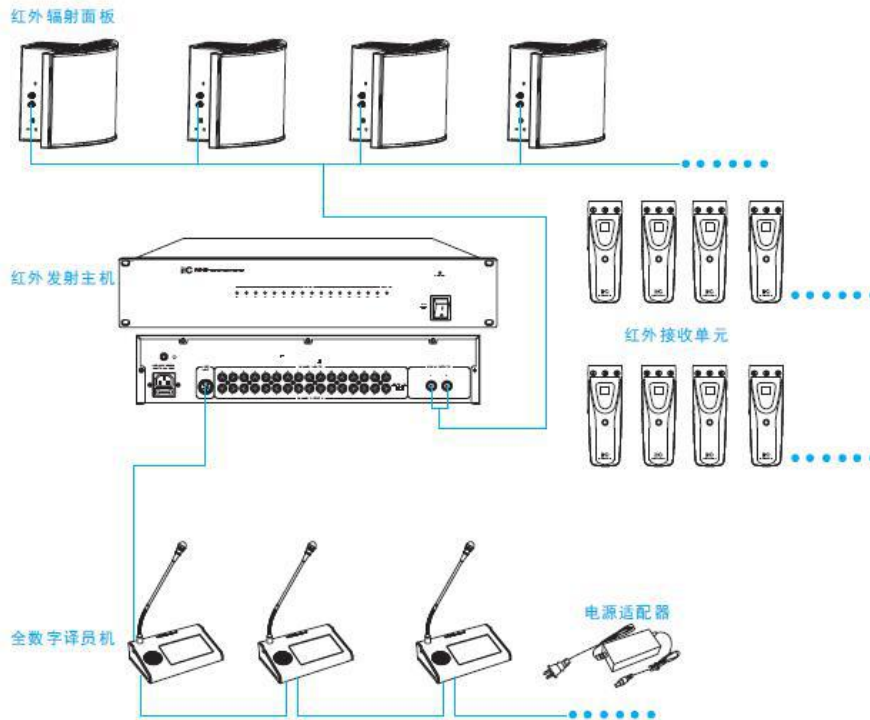
Follow the system connection diagram as below figure:

**Solution one:**



**Solution two:**





1. Install the host in a standard rack , the radiation panel is installed in the corner of the room, as far as possible to keep radiation to the every corner.
2. Open the interpreter unit and turn off the microphone stem to listen the original sound; Open the microphone stem and correspond with language channel, listen the corresponding channel with receiver unit.
3. If choose solution two, full-digital interpreter need to match power adapter, because the infrared emission host does not provide power supply.

## 4. Infrared System Installation Notes

Infrared simultaneous interpretation system is easy to install (installation time depends on the radiator positioning and calibration ), simply connect the device directly, without excessive cable arrangement. The maintenance of receiver is only charging.

Once installed, the system can be extended at any time. If the size of meeting to expand, simply increase the number of receivers, the basic structure of the system remains unchanged.

The following highlights the installation and debugging of radiation panel:

### 4.1 The directional characteristic of reception and emission

Digital infrared receiver with super wide receiving angle, even when the receiver is placed at random, also can receive perfect sound. As shown in figure 4-1-1:

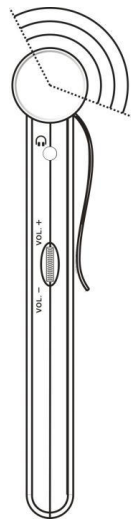


Figure 4-1-1 The best reception range of the infrared receiver

Radiation area of the radiation panel is oval in shape, with the increase of distance, the diameter of emission region also increase accordingly, unit beyond a certain limit.

Figure 4-1-2 “Coordinate direction schematic of radiation panel.”

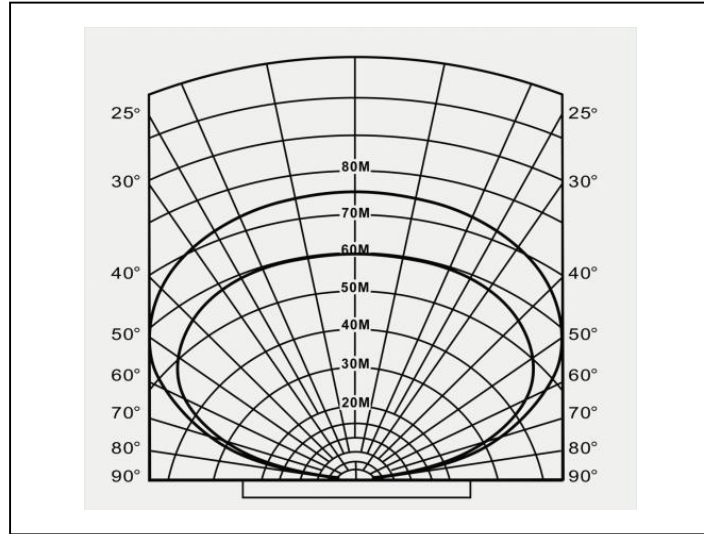


Figure 4-1-2 Coordinate direction schematic of radiation panel

## 4.2 The effect of radiation panel and seat arrangement

If precise alignment of the receiver and the radiation panel, you can receive the best transmission signal. If the radiation panel or receiver out of the optical axis, the received energy will decline. But in the radiation area, as long as the receiver isn't blocked directly with radiation panel (for example: by his own body cover or objects in front of the receiver), the energy is still sufficient. Figure 4-2-1 hindered installation:

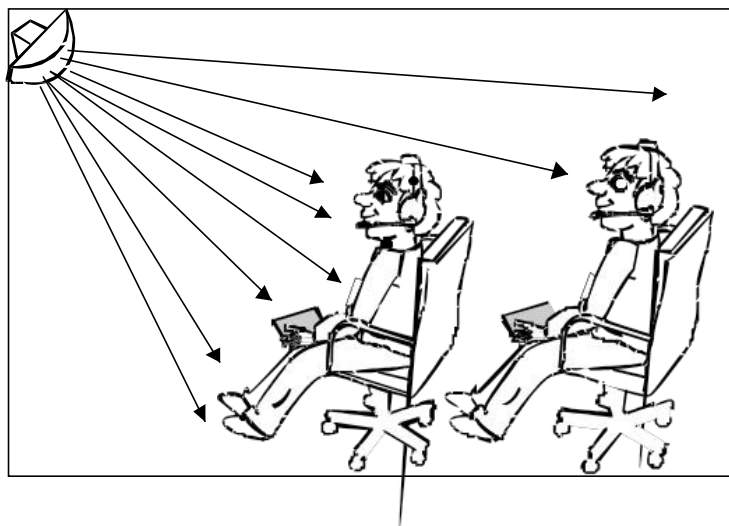


Figure 4-2-1 hindered installation

To ensure the best transmission signal, it's necessary to make the space position arrangement of the radiation panel fit the seat arrangement, the ideal method is to make the infrared light reach the receiver units' seats directly. It's the guidance direction of

radiation panel installation. Apparently, we should be more tend to install radiation panel as figure 4-2-2 showed. But in fact, project installation is very hard to fully achieve the effect of reception and emission like figure 4-2-2, at this time we need to properly use reflection signals to complete signal coverage.

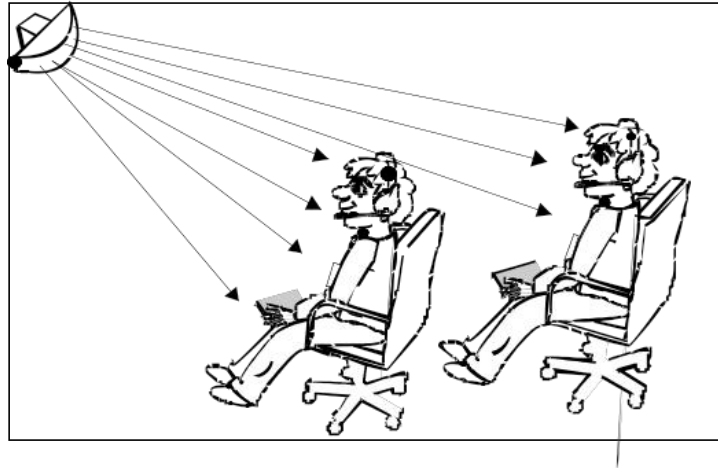


Figure 4-2-2 unhindered installation

In figure 4-2-3, the receiver not only receives the direct signal, but also receives the reflected signal, which can enhance the signal strength.

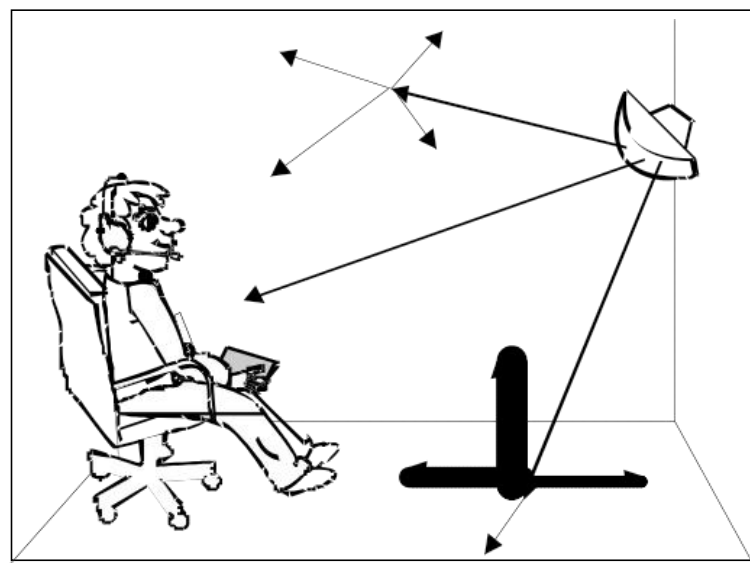


Figure 4-2-3 combination of direct and reflected received

In figure 4-2-3, On behalf of the receiver only rely on the signal to solve the problem of signal reception,Relatively speaking, the effect of this situation is slightly worse than the direct effect of the signal. But the signal energy is still adequate. In order to avoid people walking blocking infrared radiation panel installation height recommended more than 2.5 meters.

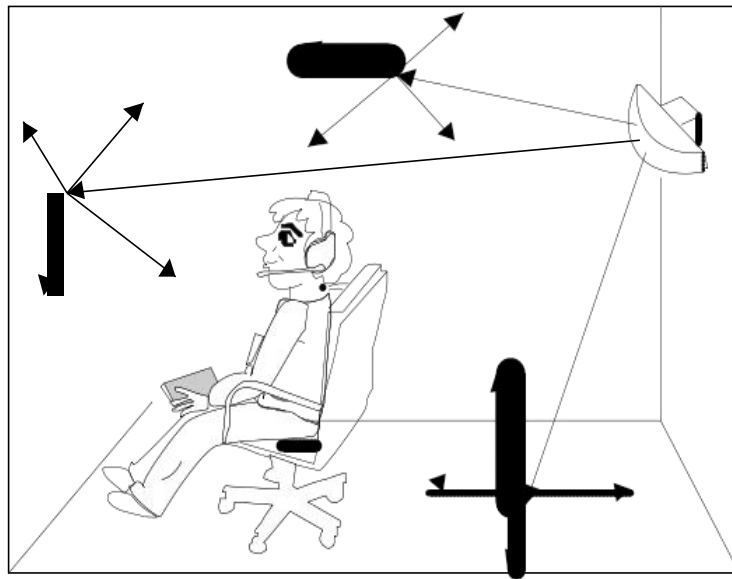


Figure 4-2-4 height can reduce obstruction

### 4.3 The surface of wall, ceiling, floor and curtain

Infrared ray is just like visible light, which can be reflected by bright and smooth surface, but be absorbed by dark and rough surface. The reflected light usually has a positive effect in signal transmission, and will not cause any destructive effect. The needed power of the system used in bright and smooth-surface room is less than that in dark and rough-surface room, like carpet and curtain. Besides, the reflection results vary significantly with different floors. The shadow of wall and furniture will also affect the transmission of infrared ray. All these problems can be solved by using enough IR radiators and placing them carefully. In order to ensure a good radiation effect, the IR radiator should not face the window without curtain. The figure 4-3 shows the reflection difference of different floors.

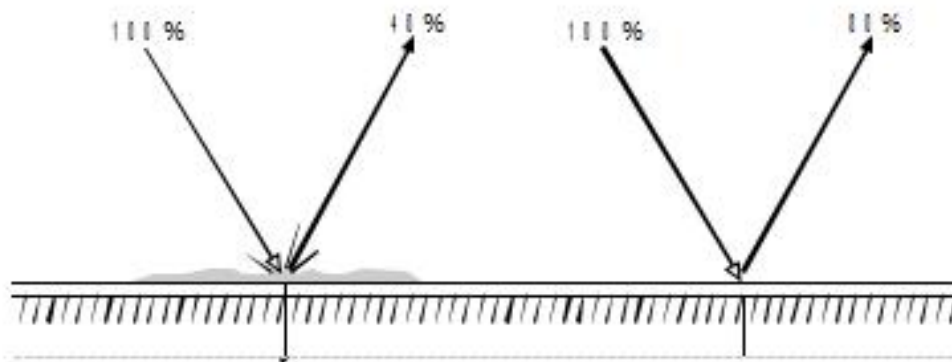
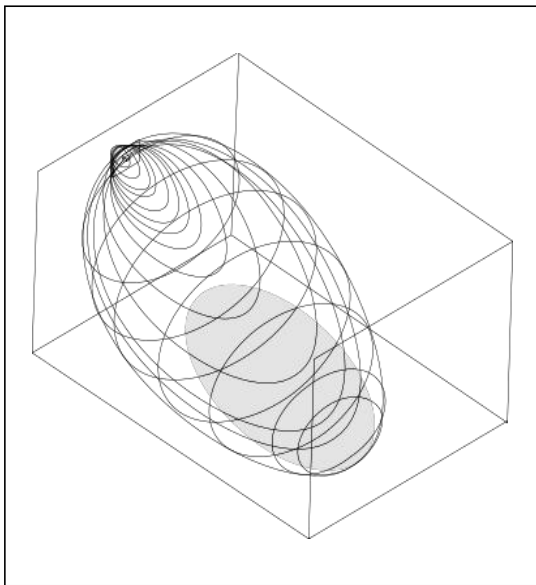


Figure 4-3 the reflection difference of different floor

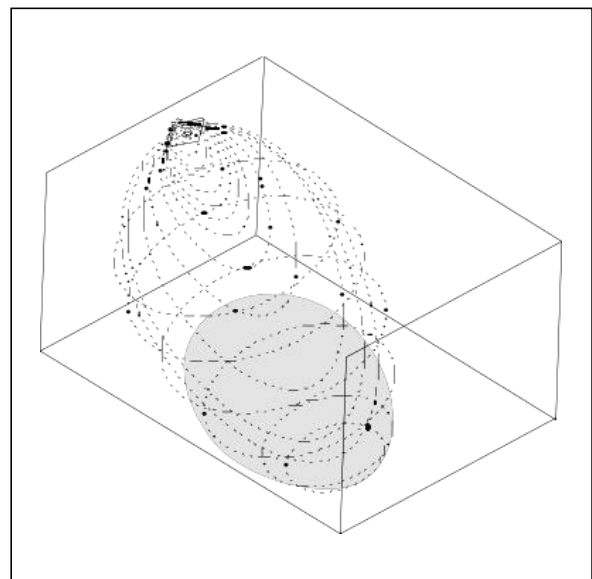
## 4.4 The coverage range of IR radiator

In the system, the coverage range of IR radiator is decided by carrier number of the radiation controller and the output power of the IR radiator. The coverage range can be enlarged by adding the number of IR radiator. The total radiation intensity of the IR radiator is distributed in the controller according to carrier number. The more the carrier number is, the less the coverage range will be.

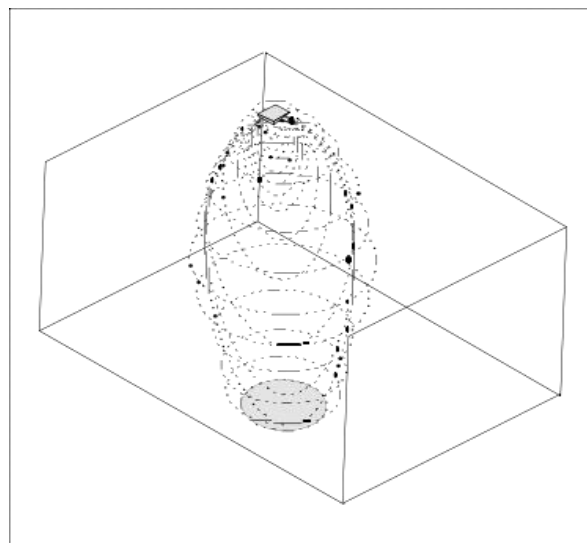
As shows in below figures, the radiation cover area lies in the intersection area of receiving surface of the participants. In this cover area, if the radiation signal can reach the receiver directly, the direct signal can ensure normal reception. You can see the below figures for covering effect in different installation angle:



15°Installation



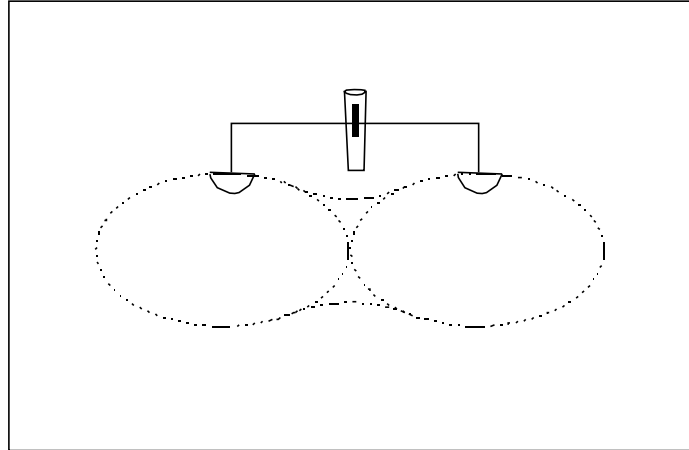
45°Installation



90°Installation

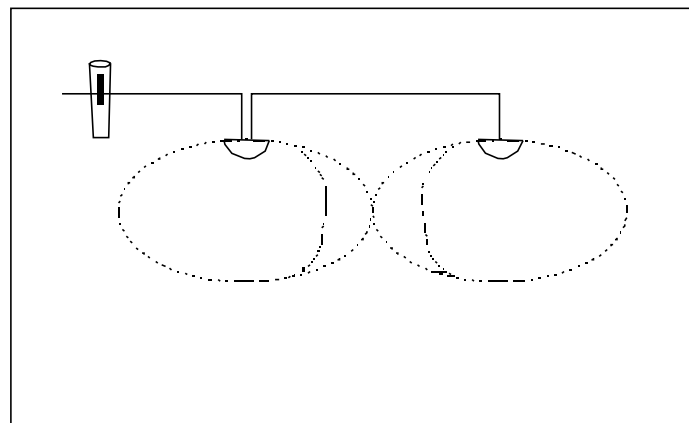
## 4.5 Overlapping area and multipath effects

Every two IR radiators will bring overlapping area. And the total cover area is possibly large than the sum of two individual IR radiator, which will make radiation intensity greater than the needed one.



Schematic diagram of two overlapping IR radiator

As the receiver receives the signals from multiple IR radiators, the signals will possibly be offset each other due to time delay difference, or the receiver will not receive any signals from the IR radiators in some special places. The signal delay can be compensated by the delay compensation switch.



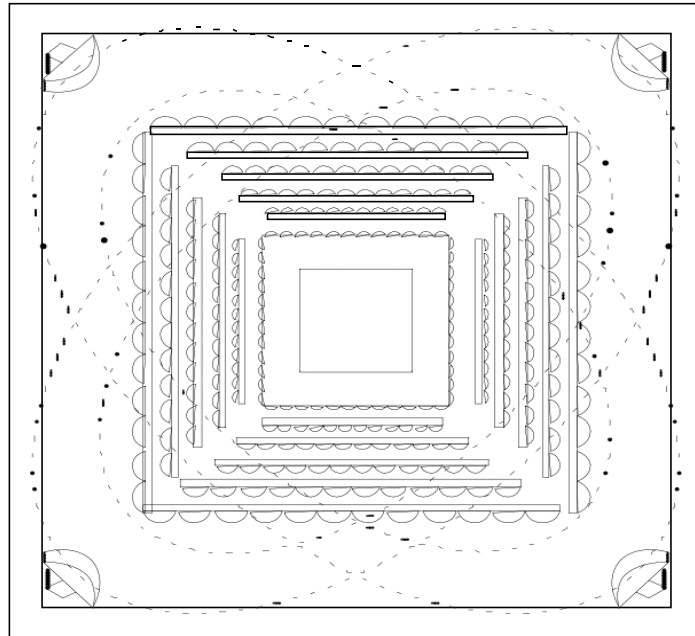
Schematic diagram of the reduced area by signal delay of two IR radiators

## 4.6 The installation of IR radiator

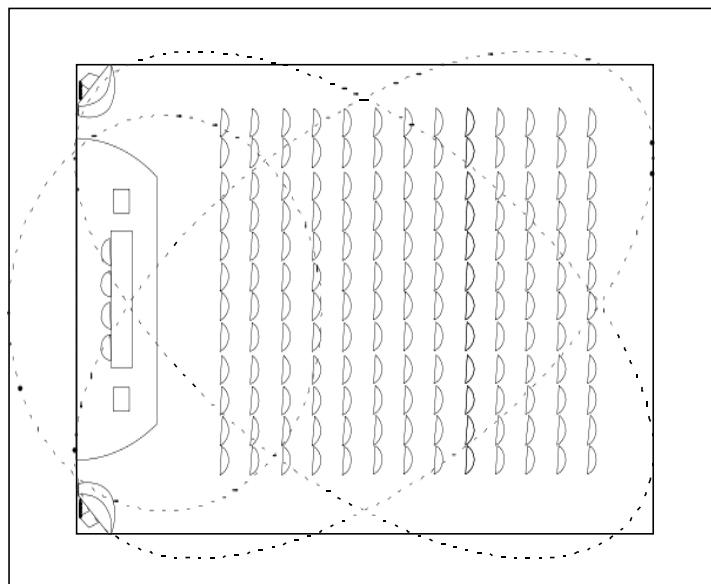
The IR signal can be refracted or reflected to the receiver. In the meeting room, the receivers in the front will block the signal reception of the back receivers. Thus, the user should take the installation place into consideration. The IR radiators should be installed as higher as possible, with a height of at least 2.5m which ensure the effective cover area.

The signal reception rate of dark area will not decrease to 0 when the IR radiators are installed in a very high place. The reason of that is because infrared light can be refracted (identical with visible light). So, it will show in the shadow area as the form of diffused light. But the signal reception quality will be extremely bad in this circumstance.

If it is impossible to install the IR radiators in ceiling, wall or other bearing objects, they have to be installed them in the proper places based on the above principles.



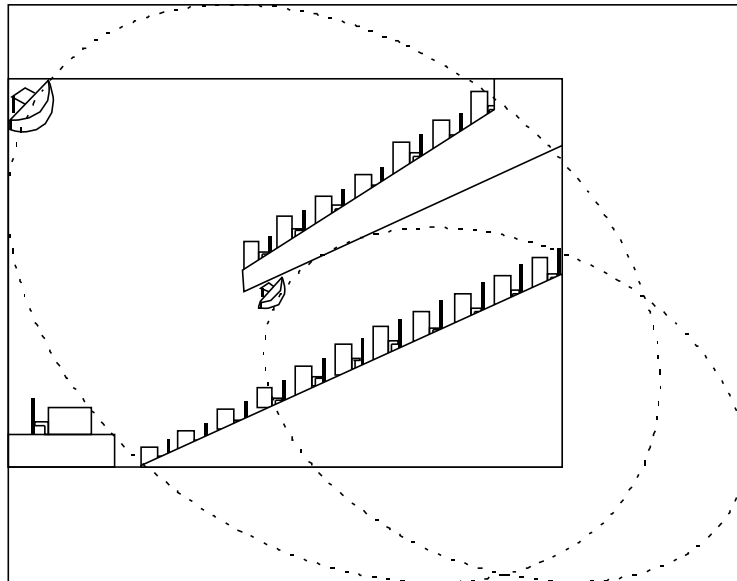
Infrared cover diagrams in square shape



Infrared cover diagrams for auditorium and rostrum

If there is transmission obstacle in the venue, one more radiation panel should be added at this blind spot to make sure normal transmission of infrared signal.



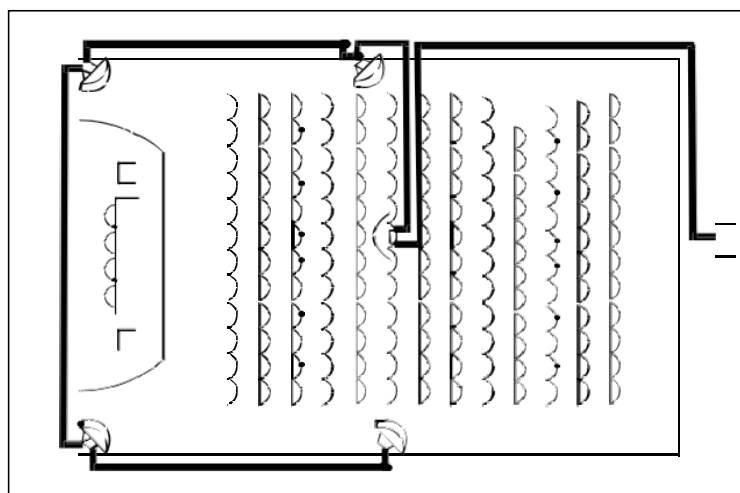


Infrared cover diagrams in blind spot situation

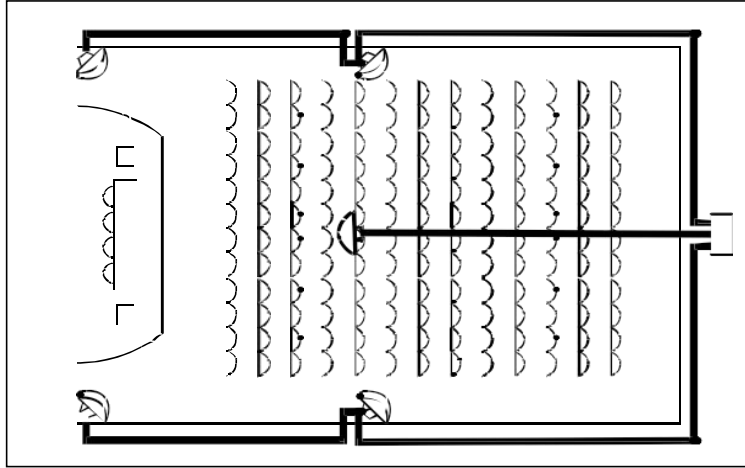
#### 4.7 Wire connection of radiation panel

Due to different distance from each radiation panel to radiation host, the signal delay will be different. In order to avoid blind spot, installer could symmetrically install the radiation panel with same length cables.

There is a signal delay compensation switches inside the radiation panel. When the infrared signal has delay, user could turn on the switches to moderate the delay.



Unsymmetrical connect way(It should be avoided.)

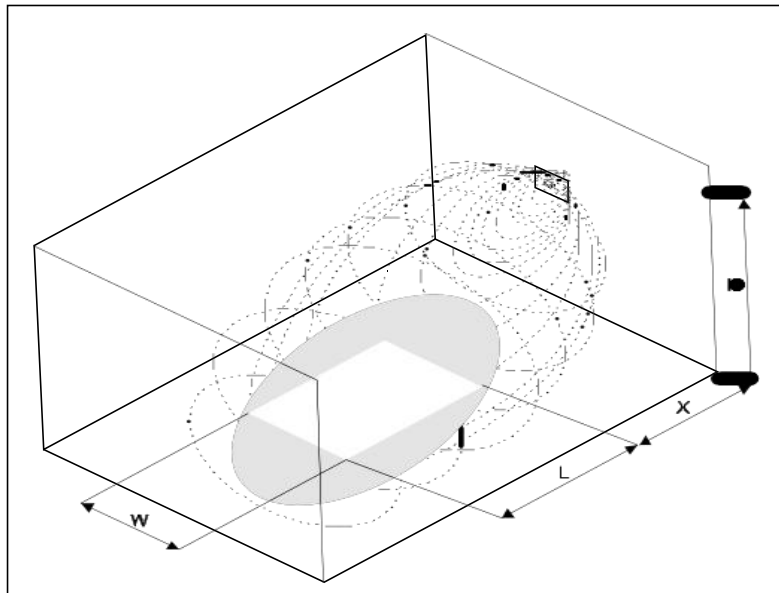


Symmetrical connect way(It should be advocated.)

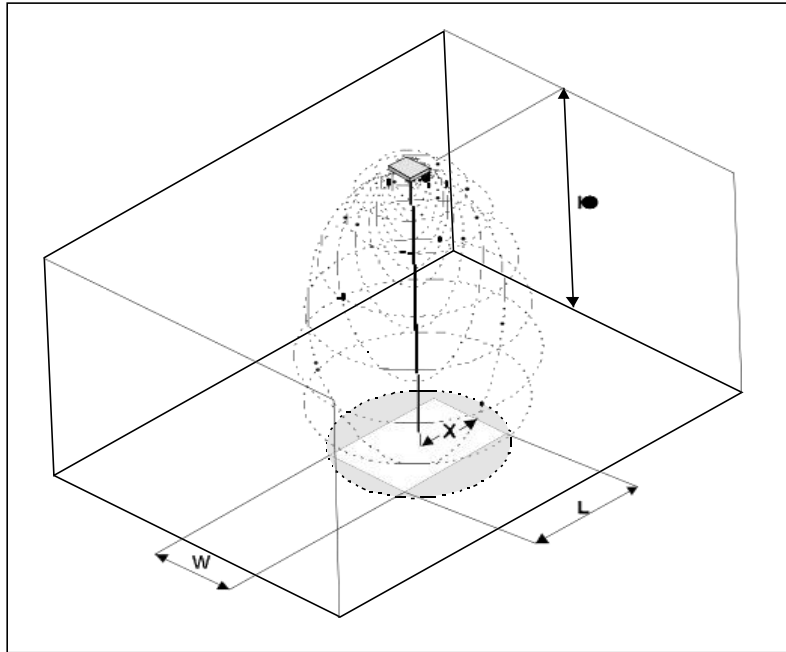
## 4.8 Rectangular floor area

How many radiation panels could cover the venue 100%, which could only be decided by field test. But user can use “insurance rectangular floor area” to have a fairly close estimate.

Picture 4-8-1 and 4-8-2 illustrate the “rectangular floor area”. From the pictures, rectangular floor area is always less than total floor area. On the picture 3-7, "offset" X is negative. The actual installation position of the radiation panel has exceeded the "rectangular floor area" starting point in the horizontal direction.



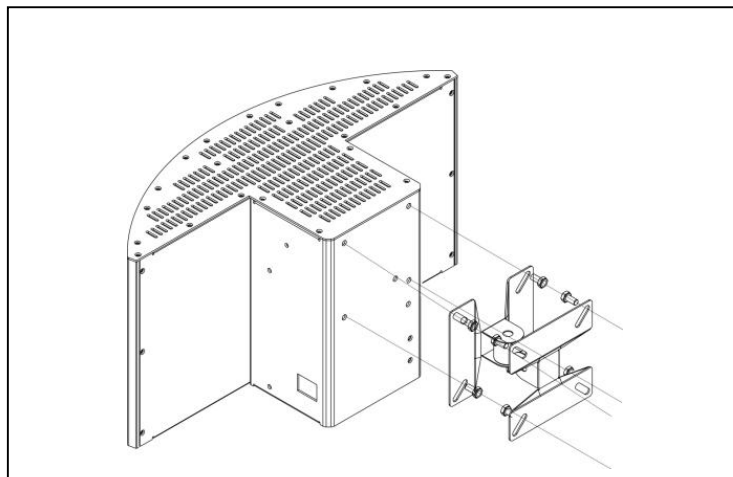
Picture 4-8-1 Typical rectangular floor area by 15 degree



Picture 4-8-2 Typical rectangular floor area by 90 degree

## 4.9 Installation of radiation panel

Infrared radiation panel can be mounted on the wall or ceiling. It is packed with a mounting bracket and screws. Installation as shown below:



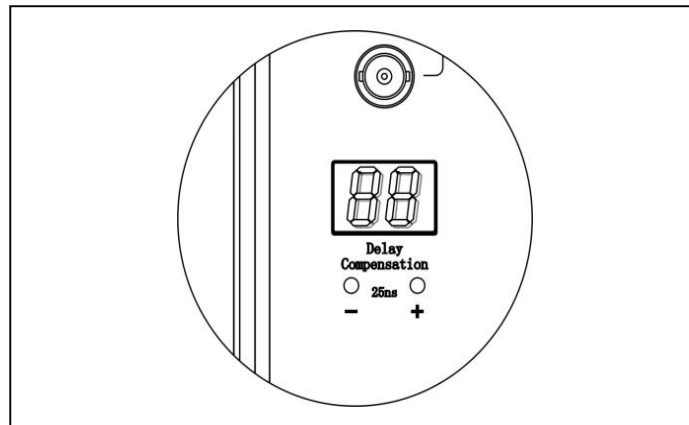
**Notice: Before installation, user need to make sure the air flow around panel to avoid overheating phenomenon.**

## 4.10 Delay Compensation

As mentioned on past description, receiver receives signal from two or three radiation panels. So the delay difference could be a blind spot.

To compensate the signal delay differences, user could increase the delay on radiation panel by adjusting the delay compensation switch. Delay compensation window can be displayed from "00" (00 means no delay) to "99". The displayed value

will be multiplied by 25ns, so you can adjust the delay time from 25ns to 2475ns (99X25).



If the cable directly is connected to the transmission controller, there is no need to consider the cable signal delay. In this case, we just need adjust the time delay switch to be "00", and confirm if need signal delay compensation.

The delay of farthest distance radiator from the transmission controller to be a reference, then adjust use the delay of other infrared radiator through “+” or “-“buttons, to ensure the radiator time delay same as reference one.

$$\text{Formula: } X = \frac{(L_{\text{MAX}} - L) \times 5.6}{25}$$

- ◆ Cable delay coefficient is 5.6ns / m;
- ◆ X: Delay Compensation Parameters displayed on the window;
- ◆ L MAX-L: The maximum distance (m) from the infrared transmission controller to the farthest radiator
- ◆ L: The distance (m) is from the adjusted infrared radiator to the infrared transmission controller;

Measuring the cable length according to the following steps to determine the delay switch settings:

- ◆ Test the cable length (L) from the controller to various infrared transmission radiators;
- ◆ Determine the cable length LMAX
- ◆ Calculate the D-value between the maximum cable length LMAX and cable length L ;
- ◆ Divide 25 by the D-value, the whole number (rounded) which is the setting parameter of the time delay compensation switch on the infrared transmission radiator.
- ◆ If there is overlapping coverage area, the time delay switch setting parameters of the nearest radiator to the overlapped coverage area need correspondingly increased, to be the radiator signal delay compensation;
- ◆ According to the calculated setting parameters to set the delay switch.

## **4.11 Control and Indication**

◆ 2 Delay Compensation buttons, to compensate for different cable lengths between the transmission controller and radiator.

## **4.12 Interconnection**

◆ output socket (2XBNC), to connect the transmission controller and cascade to next radiator unit

## **5. Common fault and maintenance**

### **1. The host power supply light off**

Check the power supply I / O switch if it close or open, the equipment power input if well- connected..

A, There are two characters "O" and "I"on the switch power button, when the "O" subsidence, "I" upturned on the other side, it means power off , otherwise power on.

B, Check the power socket wiring if good connection, or unplug the power and then re-plug socket and make sure it is well connected.

### **2. When plug or extract the serial port or connect to the cable interface, there will be obvious static electricity; it may be not well grounded. In this case,please use correct method to ground, otherwise it is easy to damage the host and shorten life span**

A, Due to the host is 100-240V switch power supply, in order to prevent static electricity, please use a three-core power cable and must be well grounded, instead of two-core power cable.

B, Check the local power outlet if well grounded

### **3. Radiator indicator light off**

Please check the power supply is well connected, check the signal is well connected.

### **4. Receiver operating anomaly**

A, When you use dry batteries, check the battery is adequate, if properly installed.

B, When you use rechargeable batteries, make sure if it is in a saturation state.

C, Check the headset and the receiver is connected properly.

D, Check the receiver is able to receive the infrared signal of sufficient strength.

E, Check the volume is on and maximum level.

F, Please avoid using receivers under the direct rays of light, such as: do not expose to sunlight.

G, Receiver noise or voice distortion, adjust the distance between the receiver and the radiator or adjust the receiving direction.

### **5. Receiver under charging**

A. If the receiver in the charging box, and the indicator light is green, check if the receiver contacts is well connected with the charging receptacle contacts , and when the indicator light is red, the receiver is under charging.

B. Light off during charging, check whether the battery in the receiver is installed correctly. Also check if the receiver temperature anomaly, well connected, or full charged.

**6. no voice for Interpreter machine**

- A. Check the interpreter machine if is power on
- B. Check the interpreter machine channel is matched to corresponding receiver
- C. Check the network if is working properly, whether the microphone is turned on.

# Digital infrared speech distribution system

